

## DESCRIPTIVE ABSTRACT

The invention relates to an instrumented tubular device for transporting a pressurized fluid notably in the field of oil exploration and in that of the transport of gas or hydrocarbons. This device comprises a tube (20) in which this fluid flows, with which are associated means for measuring the main deformations of this tube, and means for measuring the temperature of the fluid in the tube. This tube is equipped with measurement means integral with its surface and offset by at least one remote optical cable towards an electronic measurement system. These measurement means are means for assembling at least two non-parallel optical fibers which comprise at least three assemblies (B1, B2, B3) of at least two optical gages with Bragg gratings attached to at least three measurement locations (22) and connected to the remote optical cable (23) via optical fibers. At least one assembly further comprises a temperature gage.

Fig. 2A